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ABSTRACT

Ranking 49th in total employment growth between 1978 and 1986, Iowa actually lost 0.48% of its workforce each year. Income fell 2.2% annually between 1978-86 (10% per annum in the farm industry) and unemployment rates doubled since the mid-1970s. This 1988 study describes the school-to-work transition of a sample of high school graduates, class of 1983, whose aspirations and expectations for employment were formed during this period of severe economic dislocation. Eleven of 98 rural school districts with less than 300 enrolled were randomly selected and a systematic strategy of precontacts and follow-ups contributed to a response rate of 83% and a sample size of 174 graduates. The survey instrument was based on the "High School and Beyond" study. Approximately 60% of the sample went directly from high school into post-secondary education. Another 15% entered postsecondary institutions sometime in the year following graduation. Nearly 80% had pursued additional schooling within five years, with 64% of the females going on to higher education, compared to 50% of the males. Thirty percent of the sample directly entered the labor force, with over 50% going into blue collar jobs. Comparison of the students' aspirations and expectations indicates that respondents generally expected to be able to do what they wanted to do following high school graduation. The quality of employment and career paths are also assessed. The chief impression is one of change; young Iowans are geographically mobile, changing educational programs and institutions frequently, but not so frequently as they change jobs. The two appendices explain research methods and occupational categorization. This paper contains 16 references. (ALL)

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THE EARLY EMPLOYMENT EXPERIENCES OF RURAL YOUTH:
Early Results from Iowa's Class of 1983

Prepared for the
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One in a Series of Reports in NCREL's
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The Early Employment Experiences of Rural Youth:
Early Results from Iowa's Class of 1983

The decade of the 1980s has been an exceptionally difficult one for the Iowa economy. According to data reported in The Iowa Economy: Dimension of Change (1987), Iowa ranked next to last among the states in total employment growth between 1978 and 1986, and actually lost .48 percent of its workforce each year. Further, the state experienced sharply declining income (which fell 2.2 percent annually between 1978-86, 10 percent per annum in the farm industry) and suffered unemployment rates double those of the mid-1970s. These trends, similar to those experienced by other Midwestern states, only recently have begun to reverse. There is still some doubt as to the long-term prospects for economic recovery, particularly given the increasing competitive pressures of a world market on Iowa's predominantly agricultural economy.

While the recession has hit both urban and rural Iowa, smaller towns often are more seriously affected because they depend on one or two major employers, whose economic failure can quickly ripple through whole communities. The result is often job loss, population decline, and serious erosion of the local tax base on which schools and other local services depend. In short, the "rural renaissance" of the 1970s has been slowed or even reversed in much of Iowa.

Recent research has begun to examine how labor markets in rural areas are responding to these changed economic conditions. Horan and Tolbert (1984) have identified an increased segmentation of rural labor markets; that is, a growing split between the generation of "good" and "bad" jobs (see also Bluestone and Harrison, 1982). Doeringer (1984, p. 276) has gone further, arguing that, "What appears to set rural communities apart from urban communities is an economic structure characterized by (1) small firms paying near the minimum wage, (2) the presence of only an occasional large firm paying substantially higher wages, and (3) widespread opportunities for informal employment." While Doeringer nowhere maintains that all rural communities can be characterized in this way, there is little doubt that declines in Iowa's farm-related economy have disrupted many Iowa communities over the past few years.

It seems reasonable that this kind of economic dislocation might create special problems for young people attempting to negotiate the transition from school to work. As opportunities decline in rural areas, not only might the economic and occupational

achievements of those who choose to remain be lower, but so might their expectations and aspirations for the future. We recognize that our data do not permit a precise estimate of the effect of economic uncertainty on life aspirations. Our purpose in this research was describe the school-to-work transition of a sample of Iowa youth whose aspirations and expectations for employment were formed during a period of severe economic dislocation.[1] We chose a sample of the high school class of 1983 to look in some detail at their early experiences in the world of work. A companion paper assesses their post-high school educational experiences (Schonert, Elliott, and Bills, 1989).

We are interested in how the economic situation in Iowa over the past several years has influenced the occupational aspirations and attainments of youth five years after high school. We are particularly interested in how this differs for young men and women. We do want to emphasize, though, that the five years after high school, even during robust economic periods, are typically unsettled ones for all youths. Young workers very simply change jobs more often than do older workers. Whether this is the result of a period of "job shopping" before the eventual establishment of greater career stability (Osterman, 1980) or of the "floundering phase of the life course" (Namboordiri, 1987) is an open question. What we are interested in here are patterns of employment that are at least partially attributable to a harsh economic climate.

The literature on the early employment experiences of youth is vast.[2] Even the research restricted to rural samples is too extensive to survey in any depth. As MacBrayne (1987) has recently pointed out, however, much of this research dates from the 1960s, and is now too dated to speak to the experiences of rural youth in the 1980s. She further suggests that because rural communities can differ markedly from each other, research is called for that utilizes quite narrowly defined samples. Accordingly, we make modest claims for the generalizability of our data beyond rural Iowa. Still, while our sample does pertain to Iowa youth, we think the results should generalize at the least to other comparable (however construed) settings in the Midwest. Although the rural Midwest (in particular, the NCREL states of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin) is hardly undifferentiated, there do seem to be enough

1. The people in our sample were 22-23 years of age at the time of the survey. We use the term "youth" to describe them throughout this paper. Although "young adults" or "young people" might be more accurate (since "youth" is typically meant to refer to post-adolescents), we have chosen the simpler and stylistically less intrusive "youth."
2. Osterman's Getting Started (1980) is a good general overview of the youth labor market. See also Hills (1986).

similarities in terms of high school dropout rates, college attendance patterns, ethnic and racial composition (although to a lesser extent), and what is perhaps a vaguely defined Midwestern "ethos" to permit us to generalize our findings, with some caution, to the rural Midwest. There is no substitution, of course, for replication in other settings.[3]

We ask four broad questions in this paper.

1. What are the early career decisions (i.e., those pertaining to education and employment) of Iowa's rural high school class of 1983? How many went directly into the labor force following high school graduation, and how many entered post-secondary education?

2. What are the relationships between the occupational aspirations, expectations, and actual attainments of the students in the sample?

3. What can we say about the nature and quality of the jobs that these students held five years after high school?

4. What are the career trajectories of these youth? That is, do they still seem to be "job shopping" or have their careers begun to stabilize? This includes a look at the extent to which youths have left their local communities to find employment.

Study Design and Data Collection

Our research methodology is described in considerable detail in our earlier manuscript, "Rural Pathways: Rural Iowa's Class of 1983" (Elliott, Schonert, and Bills, 1988), and is outlined only briefly here. For interested readers, we have reproduced the methodology section of our previous paper as Appendix A.

We began our data collection by randomly selecting 11 rural Iowa school districts from 98 such districts with enrollments of less than 300 (Iowa Education Directory, 1986-87 School Year). These are very small school districts, although about one-quarter of the nation's public school districts enroll less than 300 students (National Center for Education Statistics 1988, Table 68). We collected information on the graduating class of 1983. Although educational and occupational careers are not necessarily established five years out of high school, by this point youth can perhaps be expected to at least be on somewhat regularized paths. Further, we selected 1983 rural graduates because we believed that they were still close enough to their high school experiences to be able to reflect upon them accurately.

3. Obviously, there is no way to provide a precise estimate of the generalizability of our findings. The most comprehensive source of American educational statistics, the Office of Educational Research and Improvement's Digest of Educational Statistics, presents an enormous amount of data that allows comparisons between states, but nowhere draws urban-rural distinctions.

We developed a survey instrument based on the ongoing *High School and Beyond* study (National Center for Educational Statistics, 1983). These items have all been carefully field tested and have satisfactory reliability and validity. Because *High School and Beyond* surveyed students while they were still in high school and we surveyed them after their graduation, we had to modify the tense in many of the questions. A systematic strategy of precontacts and follow-ups contributed to a final response rate of 83 percent and a final sample size of 174. We also conducted on-site visits to each of the 11 schools.

Results

The Transition Out of High School

About 60 percent of the youth in our sample went directly from high school to some sort of post-secondary education the following fall. Another 15 percent attended postsecondary education sometime in the year following high school graduation.[4] About 30 percent of the sample entered the labor force directly. Five students became homemakers, nine entered the armed services, and three reported that they were "not working." While the 60 percent college enrollment rate is roughly comparable to the national average, by the fifth year out of high school nearly 80 percent had at some point pursued some additional schooling.[5]

Not surprisingly, those who did enter the labor force entered it at a fairly modest level.[6] Girls went on to higher education at a considerably greater rate than did boys (64 percent to 50 percent). Of the 27 girls who went to work as their primary activity, over half (15) went into either clerical or service jobs. Of the 23 boys who went to work, 13 (57 percent) entered either farm or laborer jobs. Another eight enlisted in the armed services.

Aspirations, Expectations, and Achievements

We were also interested in how these early attainments of youth corresponded to what they wanted to be doing in September of 1983 and what they actually expected to be doing at that time. To elicit this information, we asked the following three questions, accompanied by the occupational categories shown in Appendix B:

> Please describe here what you <u>most desired</u> to do September 1983 following high school graduation.
>
> Please describe here what you <u>expected</u> to be doing September 1983 following high school graduation. (This is not necessarily what you desired to do.)

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4. A companion paper looks in more detail at the educational pathways of the students in our sample.
5. We were unable to locate data indicating how this latter figure compares to the national or regional average. Our educated guess is that it is quite high, and probably largely attributable to Iowa's extensive and accessible system of community colleges.
6. Unless stated otherwise, we use the occupational classification presented in Appendix B to describe the employment experiences of our sample.

As indicated above, these questions were drawn from the *High School and Beyond* study, and they seemed to us to be unambiguous. Nonetheless, a few respondents apparently interpreted the first question as referring to eventual rather than immediate career plans in that they selected occupational categories that could only be attained through further schooling. Only a small number of respondents seemed to misinterpret the question in this way, but we do note this as a source of some error in the data.

The responses to these questions show that to a great extent, the students' aspirations and expectations are quite closely aligned with each other. That is, our respondents generally expected to be able to do what they wanted to do following high school graduation. Of the 157 respondents who answered both of these questions, about three-quarters reported that what they wanted to do and what they expected to do matched perfectly.

The cases in which aspirations and expectations did not match, however, are informative and merit a closer look. In particular, several of the students who expected to go to college reported that they would rather have been doing something else. Nearly all wanted to be in the labor force. Five people (four of them girls) who wanted to move directly into clerical jobs after graduation expected to go to school instead, as did five boys who wanted to enter farming. Presumably, either these young people see further education as a necessary, if not altogether attractive, hurdle for successful entry into the world of work (cf. Thurow, 1975), or they are going to school because of the lack of job opportunities). The same general pattern (that is, a high correspondence between aspirations and expectations, except for those going to school apparently because of the lack of job opportunities) holds for the relationships between what students wanted to be doing (aspirations) and what they actually did (attainments), as well as between what they expected to be doing and what they actually did. Further -- and while we hesitate to make too much out of it given our relatively small sample -- boys seem somewhat more likely than girls to go on to college when they would really rather be working.[7]

On the other hand, at the same time that some students apparently went to college because the work they hoped to be doing was not available, not everyone who wanted to go to college was able to do so. Of the 93 who wanted to go on to postsecondary education, nine neither expected nor were able to do so. All nine entered relatively unskilled jobs instead, although seven of them managed to enter postsecondary schooling within a year (presumably after saving some money).

7. As a brief aside, 12 of the boys in our sample wanted to farm after graduating from high school. Only five expected and were actually able to do so. Another five went on to school, one took a blue-collar job, and another entered the armed services.

Five Years Out of High School: The Quality of Employment

We look next at the experiences of these youth five years after high school. Thirty-five were still in school, yet nearly 80 percent reported having some kind of a job at this time. To facilitate discussion, we recoded the occupational categories into white-collar, blue-collar, and farm. Although clerical jobs are usually classified as white-collar, we include clerical here in the blue-collar category because the nature of the work and the rewards associated with it are typically closer to those of blue-collar than white-collar jobs. (In fact, many researchers now view clerical workers as "pink collar" and point out their resemblance to blue-collar jobs.) We exclude those in the armed services from these calculations because it is uncertain whether military service was chosen as an avenue to job training or was a career decision in itself. We also exclude homemakers, those in training programs, the self-employed (a very small number of cases, who did not fit easily into the white-collar/blue-collar/farm classification), and those working without pay.

With these restrictions, 108 respondents provided information on their jobs five years after high school. One-quarter of these were in white-collar positions, and another 71 percent held blue-collar (again, including clerical) jobs. Only four (all males) were in farming. The statistics revealed that males are somewhat more likely than females to hold white-collar jobs, and females tend to cluster into blue-collar (primarily clerical) positions.

A subsample of these 108 respondents are those who had never attended postsecondary schools and who, in any given year, were most likely to report their primary activity as "working." This is a small group (between 10 percent and 13 percent depending on the year), but an important one. It seems to represent a segment of the "Forgotten Half" that has recently begun to receive attention (W.T. Grant Foundation, 1988). These are the youth who have made the transition from high school to work without the benefit of further education. Virtually all of these in our sample held blue-collar jobs. We designate them here as "high school only" and highlight their experiences at appropriate points.

As indicated above, we were interested in the quality of the jobs held by our respondents five years after high school. While we were unable to obtain satisfactory data on income, we did ask these youth how satisfied they were with their working conditions, their opportunities for advancement, and their opportunities for developing new skills. The responses were coded on a four-point scale from "very dissatisfied" to "very satisfied." Here again, we treat these findings with caution because our respondents are still at very early points in their work lives. Perhaps surprisingly, the youth in our sample seemed

exceptionally satisfied with their working conditions. There are no apparent differences in job satisfaction across occupational groups.[8] Levels of satisfaction with opportunities for promotion and skill enhancement are also generally high, although white-collar workers seem especially satisfied and farmers (for whom the idea of promotion is somewhat problematic) less so. Members of the "high school only" subsample are consistently (if slightly) less satisfied than are other individuals.

Female workers are consistently more satisfied with their jobs than are men. Despite the higher college attendance rates of women and the expressed interest of many of them in non-traditional careers, we are reluctant to interpret this finding as indicative of the higher quality of jobs held by women. While we are admittedly speculating here, most likely the women in our sample set their occupational sights lower than did the men (with numerous obvious exceptions) and were simply satisfied when these lower expectations were realized. Part of this, we suspect, is that the clerical jobs aspired to and attained by many of our female respondents are more in line with what they expected work to be like than were the jobs taken by men in a period of economic decline. That is, the loss of often well-paid manufacturing and crafts jobs typically secured by young men have given way in many communities to less attractive service jobs. To the extent that the earlier hopes and present realities of young men have diverged, we might well expect them to be less satisfied with their current jobs.

This led to another issue of special concern to rural communities, that of the local availability of jobs and the geographical mobility of rural youth. To get a better grasp on this issue, we asked our respondents the following two questions:

> Were you willing to move from your home town to get the job you wanted?
>
> How far is your current employment site from the city or community where you lived as a senior in high school?

Some of the responses to these questions are fairly surprising. First, while about one-half of our respondents reported that they were willing to move away to get the jobs they wanted, men showed more reluctance to move than did women (42 percent of men and 54 percent of women expressed a willingness to relocate). Further, men were more likely to prefer to stay or to insist on staying in their home communities than were women (46 percent to 36 percent). For whatever reasons, young Iowa men seem more rooted in their home towns than are young Iowa women.

8. Because we are not testing hypotheses, we did not formally calculate statistical significance tests. We highlight differences that are of clear, substantive interest.

While the question just discussed refers to intentions, the other question presented above refers to behavior. Twenty-five percent of the young men and only eight percent of the young women are working in their home towns five years after graduation from high school. On the other hand, about equal numbers of men and women either live in their home towns or within 50 miles of them at this point (51 percent of men and 47 percent of women), and men and women are about equally likely to be more than 500 miles away (17 percent for both men and women). Overall, then, the main story here seems to be the substantial amount of geographic mobility of young Iowans, particularly women. Given the continuing movement of Iowa's population toward urban centers, such trends will probably take on increasing importance in the future.

One further way to assess the quality of the early employment experience is by examining unemployment. We asked our respondents, "Since leaving high school, how many times have you been out of work for at least three consecutive months?" Because many of our respondents have been either students or homemakers for many or most of their post-high school years, "joblessness" typically means something quite different than to those whose main task is to provide for themselves or their families. Most of our respondents (76 percent of men and 75 percent of women) have experienced, at most, one three-month period of unemployment. Most of this would appear to be associated with school attendance. A majority of both males and females in our "high school only" subsample reported never having been out of work. Only two had experienced as many as four periods of unemployment. Several more had experienced between one and three periods of prolonged joblessness.

Career Paths

Finally, we examined whether the early employment experiences of youth constituted "pathways" which were reasonably regularized or whether these pathways tended to stray randomly. Both men and the women in our sample had held just under four jobs (including both full-time and part-time jobs) since leaving high school. Many of these, of course, were jobs held while attending postsecondary schooling (a point to which we return below). Most of our respondents (about 85 percent) had had between one and five jobs, but here, again, an appreciable number had been subject to far more job-hopping which, in some cases, reached double digits.

To further assess the career movement of young workers, we considered occupational mobility and compared the jobs held by youth in a given year with those held in adjacent years. These comparisons are based on a straightforward white collar/blue collar/farm classification. We do not present numerical results here, but rather summarize the main patterns in the text.

Before doing so, however, we need to clarify a point about the nature of these jobs. As indicated above, many of these jobs were held by students as they worked their way through college. The further away youths get from high school, of course, the more often their jobs represent bona fide career decisions. By way of illustration, of the 151 youths who were working one year after high school, 77 percent were also in school. This percentage dropped year by year to 61, 53, 38, and 14 percent.

Of the 117 respondents who described their 1983 jobs, 96 (82 percent) were in the same broad occupational category one year later. Between 1984 and 1985, the corresponding figures were 91 of 103 (88 percent). This declined to 79 of 97 (81 percent) between 1985 and 1986, and 74 of 87 (80 percent) between 1986 and 1987. Overall, then, 71 of 106 respondents (67 percent) made what would appear to be upward moves (that is, from farm to blue-collar or white-collar, or from blue-collar to white-collar) while 14 (40 percent) appeared to be downwardly mobile.[9]

There was virtually no occupational mobility within the "high school only" subsample. Nearly all started their work lives in blue-collar jobs (again, construing clerical work as blue-collar), and nearly all were there five years later. At first glance, this would seem to suggest one of two things. First, perhaps young people quite early establish relatively stable career paths and find their niches reasonably soon after leaving high school. Alternatively, perhaps early job placements lock youth into labor market sectors that preclude subsequent movement. There is considerable research showing the enduring effects of career origins on eventual occupational attainment (Blau and Duncan, 1967), suggesting that the patterns for the "high school only" subsample will be consequential in the long run.

9. Obviously, not all of these job shifts can be unambiguously characterized as upward or downward moves. A movement off from the farm into blue-collar work might well be experienced as downward mobility for some. In general, however, these estimates do seem to account for general tendencies in the data.

Clearly, five years after high school is too soon to determine if what we are observing is nascent career stability or permanently blocked opportunities. Two points are relevant here. First, although there is relatively little movement across broad occupational categories, there is substantial movement within them. Youth may rarely change occupations (again, defining occupations very broadly), but they frequently (even regularly) change jobs. As examples of this, one young man had a progression of jobs that included groundsman, ice cream server, janitor, packer, and (finally in his area of training) electronics technician. A young woman had gone from managing an apartment building, to being a cook, to manufacturing animal products, to being unemployed. Such patterns (consistent with those reported by Osterman (1980)) are quite common. Youth may be floundering or they may be job shopping, but they are decidedly mobile.

A second point is to caution against treating the employment experiences of rural youth as undifferentiated. We earlier cited literature that suggests a growing split in rural labor markets and found that the white-collar members of our sample were more satisfied with their opportunities for promotion and skill enhancement than were blue-collar or farm workers. Some of our material speaks to the possibility of such polarization in the early career experiences of rural youth. A number of our respondents, for instance, described the gap between what they had hoped to study in college and the jobs they ended up taking. Many of these individuals had either dropped out of college programs or had "downgraded" the level of their postsecondary education. We were also struck by the remarks of a veteran of the armed services, who found himself "begging" for any job that came along. Clearly, age 23 is too early to assume that an individual's career options have been foreclosed, but just as clearly some youths are off to much more difficult career beginnings than are others.

Discussion and Conclusions

Part of the mythology of rural America has always had to do with its presumed stability and rootedness. The vision often portrayed is one of people living out their lives in a single small town in a network of stable and persistent relationships. This is largely why the recent economic upheavals in rural Iowa and elsewhere are seen with such special alarm.

Like any myth, this one has an element of truth. Our data, particularly when coupled with our visits to the communities and schools of our respondents, has persuaded us that the low high school dropout rate of our respondents is largely due to community support (or pressure) to stay in school. We were also impressed by the comments volunteered by many of our respondents about their appreciation of the intimacy and sense of community provided them by rural schools.

Nonetheless, the chief impression we have derived from our data is one of change. Young Iowans are geographically mobile, very often willingly. They change jobs with considerable frequency, and change educational programs and institutions as well, though less often than they change jobs (Schonert, Elliott, and Bills, 1989). We cannot determine here if the pace of these changes is more, or less, rapid than at some point in the past, but considerable historical and demographic research of the past two decades (Fallows, 1983) has shown quite conclusively that Americans have never been as stationary or as rooted as popular mythology would suggest. Americans have always been a mobile people.

Still, while change and mobility in rural communities are inevitable, the current economic dislocation in rural Iowa has made the transition from adolescence to adulthood more problematic than it once was. Young Iowan men can no longer assume a partnership in their parents' farms or a secure future in a local plant. Similarly, young women now face more choices than had been previously available to them. We think much could be done to alleviate some of the uncertainty associated with this transitional period.

Such efforts are particularly important for students who choose not to pursue additional schooling after completing high school. The rural schools in our sample seemed to be reasonably successful at facilitating the entry of their graduates into post-secondary education. These students typically achieve quite well in post-secondary institutions (Schonert, Elliott, and Bills, 1989). The transition into the labor force, on the other hand, appears a bit bumpier. We think that schools and communities could do a great deal to provide non-college-bound youth with information about the world of work that is clearer, more accurate, and timelier than much of what is currently being offered. We also think that these schools could easily build upon what is perhaps their greatest asset -- their strong sense of community -- to experiment with programs of community and neighborhood service for the non-college-bound and college-bound alike. Retaining this sense of community against the trend toward school district consolidation may be the greatest challenge facing Iowa educators over the next decade.

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Appendix A

Sample Selection

We began our process of sample selection by randomly selecting 11 rural Iowa school districts with enrollments of less than 300 from a population total of 98 such districts (Iowa Education Directory, 1986-1987 School Years). The choice of districts of this particular size was made in part because of calls from researchers for a database on this sizable group (Nachtigal, 1979; Heige, 1983). Additionally, these small rural districts remain politically vulnerable to reorganization efforts and other legislative action intended to improve effectiveness and efficiency.

Our initial sampling frame consisted of 236 rural Iowa students from the graduating class of 1983. This particular group was chosen because although educational and occupational careers are not firmly established five years out of high school, by this point students can be expected to be on at least somewhat established "pathways." Moreover, we felt they were close enough to their high school experiences to be able to reflect upon them accurately.

Initially, we contacted superintendents in each of the 11 school districts via telephone to explain the purpose of the study. We asked the superintendents for the names, addresses, and telephone numbers of all students from their district in the graduating class of 1983. In the event that student addresses and telephone numbers were not available, we requested parents' addresses and phone numbers. We also requested that each superintendent provide a cover letter that we could copy and send along with the survey to demonstrate the school district's support of our research. All of the superintendents agreed to participate in the study.

Following the phone contact, a letter reiterating our telephone conversation was sent to each superintendent as well as the high school principal. In this letter, we again specified the information we requested (i.e., student names, addresses and telephone numbers). In addition, we included a sample copy of the cover letter that we wished them to prepare.

Unfortunately, the lists of students that were sent to us rarely contained all of the information we needed. Only a few of the school districts gave student phone numbers, and most provided students' names and parents' addresses. At times this made it almost impossible to use directory assistance to get the phone numbers of students. We called superintendents again to request this information, but many still sent parental phone numbers.

Survey Instrument

A survey instrument was developed to gain information from each high school graduate for the years 1983 through 1987. We selected survey items from the ongoing *High School and Beyond* study (National Center for Educational Statistics, 1983). These items have all been carefully field tested and have highly satisfactory reliability and validity.

We chose our items primarily from the following areas: high school background, parental educational and occupational background, educational attainment, employment history, attitudes and interests, and participation in voluntary groups. We selected these areas because of their demonstrated relationships with our outcomes of interest; namely, the relationship of educational aspirations and attainment and employment (Brodd et al, 1985; Brown, 1985; Fagg, 1982; Farris, Boyd, & Shoffner, 1985; McIntire, Cobb, & Pratt, 1986). We pretested the survey using a sample of individuals from a population similar to our proposed research sample.

In addition, we chose a cover design directly related to rural Iowa youth and included a transcript release form for each participant to sign on the inside front cover.

Data Collection

Precontact. We began our data collection procedure with a precontact of each student. As stated earlier, we had difficulty obtaining the majority of student telephone numbers. As a result, prior to telephoning students we spent a great deal of time calling parents for students' phone numbers. Still, we believe this effort was worthwhile. Several studies have demonstrated that contacting respondents before sending a survey significantly increases response rates (Linsky, 1975).

Initial Mailing. After a precontact, we then sent the survey to each student. The survey was accompanied by a cover letter from the researchers, a cover letter from the district superintendent or principal, and a self-addressed, stamped envelope. We sent a different cover letter to students whom we were unable to contact by phone.

First Follow-up. One week after the initial mailing, we sent a postcard to remind the students to complete the survey or thank them for their participation. We included our phone number on this postcard and urged the student to call us collect if they had misplaced the survey.

Second Follow-up. The second follow-up occurred three weeks after the initial mailing. As in the initial mailing, we included the survey and a self-addressed, stamped envelope. We included a different cover letter that specifically addressed the importance of the research study.

Third Follow-up. Seven weeks after the initial mailing, we executed a third follow-up. This follow-up procedure included sending by certified mail, a survey, a self-addressed stamped, envelope, and a new cover letter.

On-site visits. The next step in our data collection strategy consisted of on-site visits to participating schools to collect transcript information on each respondent. The information we collected included the following: a) achievement test scores from kindergarten through twelfth grade, b) ACT scores, c) kindergarten through twelfth grade absenteesim rates, d) graduating class rank, e) high school grade point average, and e) number of failing grades in high school. In order to check the accuracy of students' responses, we collected information regarding student participation in extracurricular activities as well as parent education level and occupation. We spoke at length with school personnel (i.e., superintendent, principal, or counselor) to determine the dropout rate for the class of 1983 as well as to elicit further information about the students and the school. We found these often informal conversations to be exceptionally valuable in helping us understand our findings.

A "Principal Survey" was left with each principal or primary administrator during our site visits. All 11 administrators returned the survey. This survey consisted of questions relating to the "nature of the human environment in and around school, interaction among staff, students, and parents, level of academic involvement between students and

teachers, discipline and reward structures." Additionally, each administrator was asked to describe how closely their responses reflected the conditions that existed while our sample attended high school.

Nonrespondents

Several weeks after we had completed the third follow-up, we made attempts to contact our nonrespondents. We were able to contact 32% of the nonrespondents for whom we had current phone numbers. During our telephone interview with the nonrespondents, we asked them several selected questions from our survey. The general finding of this follow-up is that our nonrespondents did not differ significantly from our respondents on a number of important dimensions (i.e., school achievement, class rank, extracurricular participation in high school, occupation, and educational attainment). This confirmed that our respondent sample was representative of rural Iowa youth from school districts of less than 300 students.

Data Processing and Analysis

Data from the survey and the transcript information were coded into machine-readable form preparatory to statistical analysis. Data analysis were performed using Statistical Package for the Social Sciences (SPSSX) computer program. The data were nominal in nature, thus frequencies were the most commonly used statistical procedure. In subsequent reports we will analyze the data in more detail using multi-variate procedures.

Appendix B

Occupational Categories

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent

CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter

FARMER, FARM MANAGER including horticulture and auctioneering

HOMEMAKER OR HOUSEWIFE ONLY

LABORER such as construction worker, car washer, sanitary worker, farm laborer, food service as work study, gas station attendant

MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, public service administrator, government official, agricultural business

MILITARY such as career officer, enlisted man or woman in the Armed Forces

OPERATIVE such as meat cutter, assembler, machine operator, welder, taxicab, bus or truck driver

PROFESSIONAL such as accountant, artist, registered nurse, engineer, psychologist, librarian, social worker, actor, actress, athlete, politician, computer scientist, pharmacist, but not including school teacher

PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher

PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner

PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter, conservationist, park service

SALES such as salesperson, advertising or insurance agent, real estate broker, modeling, fashion merchandising

SCHOOL TEACHER such as elementary or secondary

SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter, manager at apartment building, dental assistant

TECHNICAL such as draftsman, medical or dental technician, computer programmer

SERVING in an apprenticeship program or government training program, including resident assistant and graduate assistant

HOMEMAKER (without other job)

SELF-EMPLOYED in your owned business

Working WITHOUT pay in family business or farm

CHILD CARE including day care worker, coaching, nanny, camp counselor, babysitting